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EXAMINER

YAARY, MICHAEL D

ART UNIT	PAPER NUMBER
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2193

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/699,057	Applicant(s) DILLENBURG ET AL.	
	Examiner MICHAEL YAARY	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/10/2008 has been entered.

2. Claims 1-22 and 24-27 are pending in the application.

Response to Arguments

3. Applicant's arguments with respect to claims 1-22 and 24-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noble (US Pat. 5,892,949) in view of Mutchler (US Pat. 6,889,157) and Proskauer (US Pat. 5,828,674).

6. Mutchler and Proskauer were cited in the previous office action dated 11/30/2007.

7. **As to claim 1**, Noble discloses a method for distributing software components to a plurality of test stations (abstract and column 1, lines 12-19), said method comprising:

Accessing a test management system that is located remotely from the test stations, the test stations each analyze products, the test management system storing a plurality of software components (Column 3, lines 48-56 and figure 1 discloses a server 120c (test management system), located remotely from tester 110 (test station), that stores test programs to be accessed.);

Obtaining at least one of the software components that includes information used by a computer station which communicates with a test station to analyze a product (Column 1, lines 12-19; column 3, lines 48-56; and figure 1 disclose a workstation 120a (computer station) in communication with tester 110 to test products such as circuits in using the stored products obtained from server 120c.); and

Distributing the software component, from the test management system, to the computer station automatically (column 1, line 53-column 2, line 42; column 3, lines 48-56; and figures 1 and 3).

8. Noble does not disclose that the distributing of the software component is based on at least one of an identification of the test station and an identification of the product. However, Mutchler discloses that the distributing of the software component is based on at least one of an identification of the test station and an identification of the product (Column 1, lines 42-55 disclose installing and configuring test files for a specific device under test based on a unique identifier that corresponds to the specific device under test and thus can be taken in combination with the distributive communication means of Noble.).

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Noble, by configuring testing files based on identification information, as taught by Mutchler, for the benefit of providing greater efficiency in processing as one would be motivated to make the combination in order to reduce the time for configuration and distribution.

10. The combination of Noble and Mutchler do not disclose wherein an instrument is used to test the product; and downloading at the computer station an equipment file set including said software component, said equipment file set directing the computer station to operate the instrument to analyze the product.

However, Proskauer discloses wherein an instrument is used to test the product; and downloading at the computer station an equipment file set including said software

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component, said equipment file set directing the computer station to operate the instrument to analyze the product (Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operation in a particular workstation, regardless of the product tested.).

11. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Noble and Mutchler, by associating specific drivers for different equipment handlers at different workstations as taught by Proskauer, for the benefit of creating smaller and more simple driver modules for instrument control (Proskauer column 6, lines 5-6).

12. **As to claim 2**, the combination of Noble, Mutchler, and Proskauer disclose an equipment file set including said software component, said equipment file set directing the computer station to operate an instrument, said equipment file set being uniquely associated with the computer station and independent of the product (Proskauer, Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operation in a particular workstation, regardless of the product tested.).

13. **As to claim 3**, the combination of Noble, Mutchler, and Proskauer disclose downloading at the computer station an equipment file set that is uniquely associated with the computer station and the instrument and said equipment file set being

independent of the product (Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operating the instrument in a particular workstation, thus controlling and analyzing the product, regardless of what product is tested.).

14. Claims 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noble in view of Mutchler and Proskauer as applied to claim 1 above, and further in view of Kittross et al. (hereafter Kittross)(US Pat. 6,681,351).

15. Kittross was cited in the previous office action dated 11/30/2007.

16. **As to claim 4**, the combination of Noble, Mutchler, and Proskauer do not disclose the obtaining being done by downloading at the computer station a test program set, said test program set directing the computer station to analyze the product, and said test program set being uniquely associated with the product and being associated with the computer station.

However, Kittross discloses the obtaining being done by downloading at the computer station a test program set, said test program set directing the computer station to analyze the product, and said test program set being uniquely associated with the product and being associated with the computer station (Kittross, column 4, lines 7-12 and 55-58).

17. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Noble, Mutchler, and Proskauer, by utilizing specific test procedures and instructions for a specific task, as taught by Kittross, for the benefit of testing specific device in a consistent automated manner based on the specific test program (Kittross, column 1, lines 40-42).

18. **As to claim 5**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose an instrument is used to test the product (Kittross, column 6, lines 45-47), said obtaining step comprises downloading at the computer station a test program set, said test program set directing the computer station to analyze the product, and said test program set being uniquely associated with the product and being associated with the computer station and the instrument (Kittross, column 4, lines 7-12 and 55-58).

19. **As to claim 6**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose testing the product with an instrument based on the software component, wherein the instrument is at least one of a power supply, a communication analyzer, a signal generator, and a frequency counter (Kittross, column 6, lines 45-47 and column 11, lines 25-30 disclose a power supply).

20. **As to claim 7**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose downloading at the computer station at least one of a communication file, a

configuration file, a calibration file, a test executive file, a test sequence file, a specification file, and a test step execution file (Mutchler, column 4, lines 38-42 disclose a configuration file).

21. **As to claim 8**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose a database for storing software components (Kittross, test element database 36 of figure 1); multiple equipment file sets (Proskauer, Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operating the instrument in a particular workstation, thus controlling and analyzing the product), each equipment file set including at least one file identifying communications protocols between the computer station, the product and the instrument used to test the product (Proskauer, Column 6, lines 21-27 and lines 34-39 disclose the way communication is done in the test station environment, thus providing a communications protocol.).

22. **As to claim 9**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose a database for storing multiple software components (Kittross, test element database 36 of figure 1); multiple equipment file sets (Proskauer, Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operating the instrument in a particular workstation, thus controlling and analyzing the product), and each equipment file set including at least one file identifying a calibration for an instrument to be used by the computer station to

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analyze the product (Proskauer, Column 6, lines 24-27 disclose programming the handler (instrument) appropriately, thus calibrating accordingly for testing).

23. **As to claim 10**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose analyzing at least one of a printed circuit board assembly, a combination of the printed circuit board assemblies, a module, a circuit pack, a field replaceable unit (FRU), a processor, a memory, and a cable (Mutchler, Unit under test 105 of figure 9).

24. **As to claim 11**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose storing, in a database, multiple test program sets (Kittross, column 4, lines 7-12), each of which includes at least one test step execution file that identifies steps to be executed by an instrument configured to test the product, wherein said obtaining step comprises accessing the test step execution file (Kittross, column 3, lines 58-66).

25. **As to claim 12**, the combination of Noble, Mutchler, Proskauer, and Kittross disclose said test management system comprises a management file service accessed, by the computer station, to download software component updates (Noble, column 5, lines 5-21).

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26. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noble in view of Mutchler and Proskauer as applied to claim 1 above, and further in view of Blitz (US Pat. 6,047,293).

27. Blitz was cited in the previous office action dated 11/30/2007.

28. **As to claim 13**, the combination of Noble, Mutchler, Proskauer do not disclose storing a relationship between the software components, products, instruments, and computer stations.

However, Blitz discloses storing a relationship between the software components, products, instruments, and computer stations (Column 5, lines 54-55 and column 6, lines 11-13 and 38-42 disclose different types of information being stored regarding the Excel workbook. Also it is mentioned that the spreadsheets contain all data required for a test, thus making it obvious that relationship data regarding products, instruments, and computer stations would be necessary as they are relevant pieces of information needed for testing.).

29. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Noble, Mutchler, and Proskauer by, storing relationships regarding different components of the test system as taught by Blitz, for the benefit of creating an efficient and organized means of accessing relevant information necessary for product testing.

30. **As to claim 14**, the combination of Noble, Mutchler, Proskauer, and Blitz disclose storing in database information identifying multiple products, test stations used to test each product, instruments used to test the products, and fixtures used to hold the products (Blitz, Data manager 316 in figure 2, and column 5, lines 54-56 disclose how all required data regarding testing is stored in the data manger, thus being obvious that test station, instrument, and fixture information would be included as their data are required pieces of information necessary for testing.).

31. Claims 15-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kittross in view of Proskauer and Noble.

32. **As to claim 15**, Kittross discloses a management system database configured to be used with a computer station that operates an instrument (test interface 28 of figure 1) when analyzing a product (test devices 46-1 – 46-X and test element database 36 of figure 1; abstract, lines 1-3; and column 12, lines 40-41).

33. Kittross does not disclose the database storing software components that are configured to be executed by the computer station to communicate with and operate the instrument in order to analyze the product, said database automatically accessing said software components based on identification of at least one of the computer station, the instrument and the product.

However, Proskauer discloses the database storing software components that are configured to be executed by the computer station to communicate with and operate the instrument in order to analyze the product, said database automatically accessing said software components based on identification of at least one of the computer station, the instrument and the product (Column 6, lines 17-38 disclose how communication is done in a testing environment by the computer station communicating with the handler or instrument, thus providing communication procedures and components that can be stored in the database when combined with the teachings of Kittross.).

34. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kittross, by implementing software components used to communicate with and operate the instruments, as taught by Proskauer, in order create a flexible easy to use test system allowing for changes to be made as necessary to the varying testing requirements.

35. The combination of Kittross and Proskauer do not disclose said database is located remotely from said computer station. However, Noble discloses said database is located remotely from said computer station (Column 3, lines 48-56 and figure 1 discloses a server 120c (test management system), located remotely from tester 110 (test station), that stores test programs to be accessed).

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36. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kittross and Proskauer, by implementing a database remotely located from the computer station, as taught by Noble, for the benefit of efficiently distributing software components to a plurality of different computer stations.

37. **As to claim 16**, the combination of Kittross, Proskauer, and Noble disclose said software components are organized into at least one equipment file set defining a station specific test solution to be executed by the computer station to direct the instrument to perform a test solution, said equipment file set being uniquely associated with the computer station and the instrument, said equipment file set being independent of the product (Proskauer, Column 5, line 66-column 6, line 4 disclose individual driver software (equipment file set) associated with handlers (instruments) used for operation in a particular workstation, thus allowing the instrument to perform a particular testing solution, regardless of what product is being tested.).

38. **As to claim 17**, the combination of Kittross, Proskauer, and Noble disclose said software components are organized into at least one test program set that defines a product specific test solution to be executed by the computer station to direct the instrument (Kittross, test interface 28 of figure 1) to perform a test solution on the product (Kittross, test devices 46-1 – 46-X of figure 1), said test program set being

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uniquely associated with the product, said test program set being associated with the instrument and the computer station (Kittross, column 4, lines 7-12 and 55-58).

39. **As to claims 18 and 25**, the combination of Kittross, Proskauer, and Noble disclose said software components correspond to at least one of a communication file, a configuration file, a calibration file, a test executive file, a test sequence file, a specification file, and a test step execution file (Kittross, Column 4, lines 50-54 disclose obtaining instructions for testing, thus a test step execution file).

40. **As to claims 19 and 24**, the combination of Kittross, Proskauer, and Noble disclose discloses said software components are configured to control the computer station to analyze at least one of a printed circuit board assembly, a combination of printed circuit board assemblies, a module, a circuit pack, a field replaceable unit (FRU), a processor, a memory, and a cable (Kittross, Column 4, lines 17-19 disclose testing a circuit board.).

41. **As to claim 20**, the combination of Kittross, Proskauer, and Noble disclose said software components define an equipment file set that, when executed by the computer station, calibrates an instrument to execute a test sequence (Proskauer, Column 6, lines 24-27 disclose programming the handler (instrument) appropriately, thus calibrating accordingly for testing).

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42. **As to claim 21**, Kittross discloses a computer station configured to control operation of an instrument (test interface 28 of figure 1) as the instrument analyzes a product (abstract and test devices 46-1 – 46-X of figure 1, automatic test equipment system (ATE) 20 of figure 1), said computer station controlling the instrument based on an equipment file set (column 4, lines 7-12 and 55-58), a test station communicating with said computer station and said instrument (Column 4, lines 48-58 and figure 1 disclose the claimed computer station and test station as described by the instant application in figure 1 and [0014] of the specification; The computer station containing memory and being a part or a subset of the test station, which is made up of the computer station, product, and instrument. Figure 1 of Kittross discloses the test station as a whole containing a computer station. Column 4, lines 48-58 disclose how the ATE (test equipment or test station) obtains a test procedure from memory (obtaining it from the computer station part of the test station), thus reading on how the computer station communicates with test station for obtaining software components.); a management system database in communication with said computer station (test interface 28 of figure 1 and column 4, lines 7-47), said database being accessible by said computer station, wherein said computer station controls said instrument during analysis of the product based on said equipment file set (column 4, lines 7-47).

43. Kittross does not disclose said database storing said equipment file set, and wherein said equipment file set includes a set of software components associated with said test station and independent of said product.

However, Proskauer discloses said database storing said equipment file set, and wherein said equipment file set includes a set of software components associated with said test station and independent of said product (Column 5, line 66-column 6, lines 38 disclose equipment file sets associated with handlers (instruments) used for operation in a particular workstation regardless of the product tested, and how communication is done in a testing environment by the computer station communicating with the handler or instrument, thus providing communication procedures and components that can be stored in the database when combined with the teachings of Kittross as utilizing a database for storage would provide a more efficient means of organizing components and procedures to be communicated.).

44. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kittross, by utilizing the database of Kittross to store the equipment file set and components taught by Proskauer, for the benefit of providing a more efficient means of organization and storage of the components and procedures to be communicated.

45. The combination of Kittross and Proskauer do not disclose the management system database is located remotely from said computer station. However, Noble discloses the management system database is located remotely from said computer station (Column 3, lines 48-56 and figure 1 discloses a server 120c (test management

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system), located remotely from tester 110 (test station), that stores test programs to be accessed).

46. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kittross and Proskauer, by implementing a database remotely located from the computer station, as taught by Noble, for the benefit of efficiently distributing software components to a plurality of different computer stations.

47. **As to claim 22**, the combination of Kittross, Proskauer, and Noble disclose said computer station controls said instrument during analysis of the product based on said test program set, wherein said test program set is stored by said database and includes a set of software components that are specific to the product and associated with at least one of said computer station and said instrument (Kittross, column 4, lines 7-47) and discloses said computer station controls said instrument during analysis of the product based on said equipment file set (Proskauer, column 5, line 66-column 6, lines 38).

48. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kittross in view of Proskauer and Noble, as applied to claim 21 above, and further in view of Blitz.

49. **As to claim 26**, the combination of Kittross, Proskauer, and Noble do not disclose a developer file that enables a user to track relationships between said instrument and computer station.

However, Blitz discloses a developer file that enables a user to track relationships between said instrument and computer station (Column 2, lines 50-54 discloses a workbook (developer file) containing nested levels of device parameter data, thus being capable of tracking relationships between instrument and computer station.).

50. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kittross, Proskauer, and Noble by, incorporating a spreadsheet workbook for tracking and maintaining data as taught by Blitz, for the benefit of efficiently increasing data retrieval speed during testing.

51. **As to claim 27**, the combination of Kittross, Proskauer, Noble, and Blitz disclose a pre-release tool that is used to release information generated in a developer file (Blitz, Column 4, lines 61-68 disclose passing information from the workbook (developer file) to be tested, thus releasing the information.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL YAARY whose telephone number is

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(571)270-1249. The examiner can normally be reached on Monday-Friday, 8:00 a.m - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Y./

Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./

Supervisory Patent Examiner, Art Unit 2193